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Comparison of major protein-source foods and other food groups in meat-eaters and non-meat-eaters in the EPIC-Oxford cohort

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Introduction Differences in health outcomes between meat-eaters and non-meat-eaters might relate to differences in dietary intakes between these diet groups. We assessed intakes of major protein-source foods and other food groups in six groups of meat-eaters and non-meat-eaters participating in the European Prospective Investigation into Cancer and Nutrition (EPIC)-Oxford study.

Materials and methods Data were from 30, 239 participants who answered four questions regarding their consumption of meat, fish, dairy or eggs and completed a food frequency questionnaire (FFQ) in 2010. Participants were categorized as regular meat-eaters (> 50 grams of total/any meat per day: n = 12,997); low meat-eaters (< 50 grams of total/any meat per day: n = 4,650); poultry-eaters (poultry but no red meat: n = 591); fish-eaters (no meat but consumed fish: n = 4,528); vegetarians (no meat or fish: n = 6,672); and vegans (no animal products: n = 801). FFQ foods were categorised into 45 food groups. Analysis of variance was used to test for differences between age-adjusted mean intakes of each food group by diet group.

Results We found that regular meat-eaters, vegetarians and vegans, respectively, consumed about a third, quarter and a fifth of their total energy intake from high protein-source foods. Compared with regular meat-eaters, low and non-meat-eaters consumed higher amounts of high-protein meat alternatives (soy, legumes, pulses, nuts, seeds) and other plant-based foods (whole grains, vegetables, fruits) and lower amounts of refined grains, fried foods, alcohol, and sugar-sweetened beverages.

Discussion Overall, our results suggest that there were large differences in the amounts and types of protein-rich and other foods eaten by regular, low and non-meat-eaters. These findings provide insight into potential nutritional explanations for differences in health outcomes between diet groups.

Conflict of Interest

There is no conflict of interest

